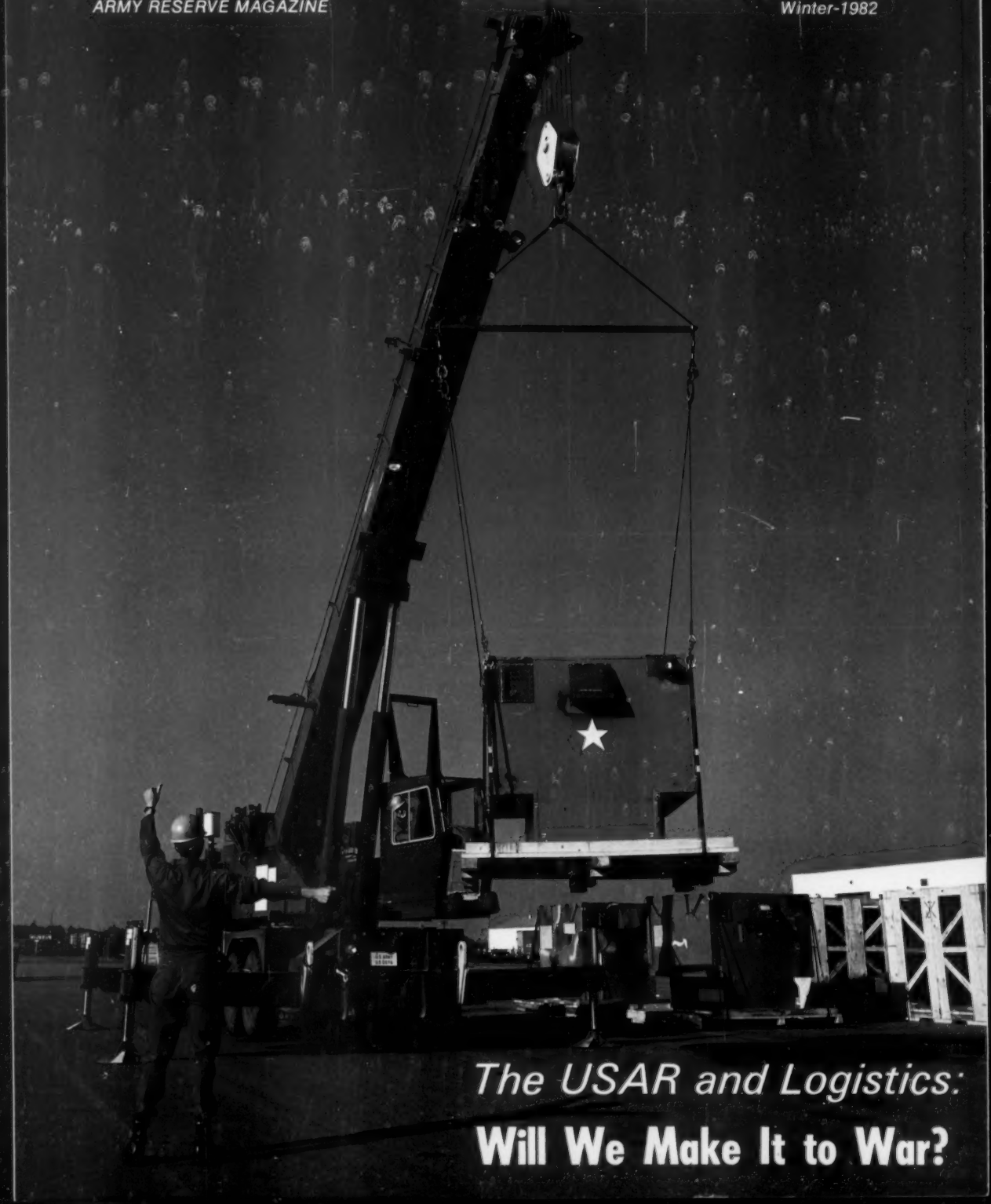
ARMY RESERVE

ARMY RESERVE MAGAZINE

Winter-1982



The USAR and Logistics:

Will We Make It to War?

An off-loading operation at Bayonne, New Jersey's Military Ocean Terminal. In wartime, this and other ports through which supplies flow wouldn't be lonely for long.

U.S. Army Photo

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CHIEF, ARMY RESERVE
Maj. Gen. William R. Berkman

CHIEF, PUBLIC AFFAIRS OFFICE EDITOR-IN-CHIEF
Steven Kimmel

COMMAND INFORMATION OFFICER
Maj. Richard B. Crossland

EDITOR
Captain Robert H. Pratt

ASSOCIATE EDITOR
Henry T. Kearney

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BRIEFS

■ *Getting Promoted.* The Army has decided to extend the time — beyond September 30, 1981 — that USAR units can waive the requirement of a position vacancy for qualified soldiers being considered for promotion to grades E-3 through E-6. E-5s can be promoted to E-6 without a vacancy after 12 years of service. We goofed in the Summer 1981 issue when we said 11 years. It's 12.

■ *Dependents Can Go to the PX Alone.* Dependents of USAR unit members can spend a day at the exchange for each day of Inactive Duty for Training (IDT) performed by members assigned — not attached — to units. Dependents should possess their members' Leave and Earning Statements (LES) or units' letters of authorization and a form of ID that verifies their dependency.

■ *Space A Travel for Reservists.* Army Reservists in uniform and with the right paperwork can travel space available anywhere in the continental U.S., Hawaii, Alaska, Puerto Rico, Guam and the Virgin Islands. What's needed is the red ID card (DD Form 2) and a DD 1853 (Authentification of Reserve Status.) The same is true for Reservists who've received official notice of retirement eligibility but have not reached age 60. They need their ID cards and notices. No uniform is required. It's recognized that many folks awaiting retirement don't have ID cards, and that Department of Defense travel regs require them. Certain (MAC) installations may *not* insist on ID cards. The best bet is to ask your nearest U.S. Air Force terminal. Try the USAF phone listings.

■ *We Need Overseas Reporters.* The magazine needs reporters in Europe, Asia and the Pacific. If you live in these places *and* you possess a 71R or 71Q MOS (or 46A SSI) *and* you are interested in a short ADT tour—then write us. Send a DA Form 1058 and personal resume. The address: HQDA, DAAR-PA, *Army Reserve Magazine*, Washington, D.C. 20310. If you have a military phone, that's dandy. Our AUTOVON is 227-8619.

■ *Survivors Benefit Program (SBP).* If you haven't received information about your enrollment in SBP, you may call The Reserve Components Personnel and Administration Center (RCPAC) in St. Louis. The toll-free number is 800-325-8311.

U.S. Army photo

Promotions without vacancies continue.

■ *USAR Marksmen Win International Competition.* Army Reserve marksmen won the overall team trophy and the individual rifle and pistol championships in the International Minuteman Competition in September in Mittenwald, West Germany. Active duty and Reserve teams from the U.S., Germany, the Netherlands, Belgium, Luxembourg, Denmark, and Austria competed. The Minuteman competition is designed to promote basic military skills while developing a professional partnership among active and reserve components of friendly nations.

■ *Check Out Fort Lee's USAR MOS Special Configuration Project.* It's tailored for USAR schools and units, and is meant to teach skills critical to wartime missions. The Quartermaster School is now working with MOSs 57E and 76P. The man to contact is Maj. Thomas McQuitty at AV 687-1318. The address is the U.S. Army Quartermaster School, ATTN: ATSM-TDS-RC, 23801.

■ *The Army Family Life Communication Line (FLCL)* toll-free phones listed in the last issue are intended for — you guessed it — *family* matters. The phones aren't meant for military *personnel* matters. If you want to talk about personnel problems, there are others (not the folks at the FLCL referral service) with whom you should speak. If you're in a unit, then speak to your outfit's NCOs and officers. If you're a member of the Individual Ready Reserve (IRR), then call your Personnel Management Officer or Personnel Management NCO. Here again are the FLCL numbers:

- Continental U.S., 800-336-5467
- Virginia only, 800-572-5439
- Alaska, Hawaii, Virgin Islands and Puerto Rico, 800-325-5480

■ *Court Decision: More on Employers and Reservists.* Remember *Monroe V. Standard Oil?* That Supreme Court case means that if your employer doesn't provide special work scheduling that excludes weekend work days to accommodate his *other* employees then he doesn't have to provide it for you. *Monroe* dealt specifically with *regular* hours. But a subsequent lower court ruling — citing *Monroe* — established a similar precedent dealing with *overtime* work. At present, the Department of Labor interprets the law — as it pertains to overtime — as follows: unless there is a collective bargaining agreement or employment policy to the contrary, employers have the right to charge Army Reservists for "overtime scheduled but not worked" when a USAR member misses overtime to attend military duty. Employers are not required to reschedule overtime missed on account of Reserve training.

LETTERS

GUARD TIME COUNTS FOR USAR RETIREMENT

SIR: A recent magazine article indicated that National Guard service doesn't count for USAR retirement. If this is so, my four years with the North Carolina National Guard were wasted. Please check this out. I enjoyed your Fall 1981 issue, as I was involved with Nike, Hercules and Hawk missiles in the late sixties.

Spec. 5 Al Rechrewicz
Greensboro, N.C.

Guard time indeed counts toward a USAR retirement. The "bible" on the subject is AR 135-180.

GET IT STRAIGHT

SIR: The Fall 1981 issue of the *Army Reserve Magazine* carried an article about Wounded Warrior I, an exercise held at Camp Roberts, Calif., this past summer. The article indicated that the logistical support was provided by the California Army National Guard. I would like to set the record straight.

The 346th S&S Battalion of Great Falls, Mont., an Army Reserve unit, provided and coordinated the logistical support for this exercise. Under the 346th were both USAR and National Guard units from Montana, Nebraska, Colorado, Kansas, Arizona, Utah and California.

Capt. Ian R. Steel
Great Falls, Mont.

DON'T RAP THE RANGERS

SIR: I was very happy to notice the (ret.) behind Col. Poulos' name at the close of his letter *(Flip the Coin, Please* — Fall 1981). I was incensed at the sweeping generalizations that he made about airborne and Green Beret units. To state that Ranger and Special Forces units are obsolete merely because of two insertion and extraction techniques is so ridiculous that it boggles my mind. His statements are indicators that he has absolutely no concept of our mission and capabilities. As for his statement about the Ranger tab being a status symbol — what gall! One of my team members just finished Ranger School and called it "the finest small unit leadership school in the world." Col. Poulos' remarks are a slap in the face of all Ranger and Special Forces soldiers in both the Active Army and the USAR. It is his kind of uninformed, unimaginative leadership that the Army can do without.

Sgt. Gregory G. Horton
Fort MacArthur, Calif.

U.S. Army photo

No to national service.

COMPULSORY SERVICE IS WRONG

SIR: It came as no surprise to me that my comments in opposition to draft registration (Spring 1981) drew the response of a call for compulsory, universal national service. America's most sophisticated militarists are pushing national service as the best way to bring back the draft. The idea and strategy are by no means new, however. National service conscription, much as described by Col. Byerly, was first proposed in 1910 by the American philosopher William James in his essay *The Moral Equivalent of War*. James proposed conscripting the entire youth male population into National Service, or "an army enlisted against Nature." Within a few years of James' essay, militarists fastened onto the idea of national service and struck the fateful alliance between domestic socialists and international militarists that has continued to this day. The link between military conscription and national service proved inextricable in 1917 and continued to be so up to the present — as former War on Poverty bureaucrats join right-wing Southerners in an effort to bring back a national service draft. A January 1979 report written by the Committee for the Study of National Service spent 150 pages extolling the alleged benefits to society of such a program. "Only by a mandatory system," stated the authors, "could we be sure that those who may need the experience most will serve. Some of us think that by making it mandatory the nation could save a significant faction of its young who may otherwise have little chance for a decent or productive life." The blatant paternalism and racism here even exceeds that of the draft-crazy militarists in Congress. It is the exact moral equivalent of those who pushed for compulsory public schooling in America in the early 1800s. It is the ethic of upper class patricians with the time and arrogance to plan other people's lives. Compulsory school, the draft, national service — all are progressive attempts to transform sovereign human beings into the means to an end, into uncomplaining human raw material. It is no coincidence that Col. Byerly, in his attempt to justify universal youth conscription, should offer France and the USSR in support of his dream. With Sweden, France is the Western country where education has been most penetrated by egalitarian, collectivist and anti-capitalist ideologies. Francois Mitterand, recently elected President of the French Republic, is the former First Secretary of the Parti Socialiste (French Socialist Party). In 1979 he officially endorsed a party platform that is openly Marxist-Leninist. This document supports "outright rupture with the present capitalist and free-market system." It favors a "larger collectivization of our lifestyles" and declares that "capitalism is an even greater threat for France than it is for the Soviet Union." So much for the societal defense of freedom by the French. And we all know what a beacon of liberty the Soviet government represents, don't we Col. Byerly?

Spec. 5 John C. Elmer
(Closet Patriot)
Minneapolis, Minn.

Starting January 1982, *Soldiers* magazine will no longer be sent to members of the Individual Ready Reserve (IRR). This action was reluctantly taken to reduce the Army's overall cost of periodicals.

Condich remembers his brush with death.

Condich Still Jumps with His D-Day Boots

Chief Warrant Officer 4 John Condich keeps an important date with a pair of jump boots every year.

Condich, who is assigned to the 86th ARCOM's 12th Special Forces Group in Arlington Heights, Ill., recently celebrated the 37th anniversary of his D-Day jump into Normandy by parachuting onto the grounds of the Cantigny 1st Infantry Division Museum in Wheaton, Ill.

Each year on June 6, he dons the boots he wore on that day in 1944 and jumps out of a military aircraft. This year's anniversary jump was the 244th parachute jump in his distinguished military career.

The jump 37 years ago took place in hot and humid weather. "High winds and darkness forced us off course and we ended up about 20 miles from our landing zone," Condich recalled. "I ended up in a mixed unit of paratroopers and glider pilots — all from different regiments and divisions. After about six days of fighting back to our lines, most of the men made it back. I didn't. I was a German prisoner of war."

During his imprisonment, he had a close brush with death, suffering a head wound when British Spitfires opened fire on an unmarked German train carrying prisoners. Condich remained a prisoner until the end of the war. Incidentally, he wore his D-Day jump boots throughout the more than 11 months of his captivity.

In October 1945, shortly after separating from the service, he joined the USAR. "I figured the training I had received and was going to receive from the Army was necessary to keep America as strong as she was following the war," said the Reservist of 36 years.

Modern Day Redcoat

Massachusetts Reservist Fought For the "Wrong Army"

Has **Staff Sgt. Don Perry** been reincarnated? That's what you may think if you listen to some of his "war stories."

"I crossed the Delaware with Washington," he said. "I was with the militia at Lexington and Concord, and I marched with Arnold to Quebec!"

Perry, who is assigned to the 468th Fire Fighters Detachment of Danvers, Mass., has soldiered in several battles and skirmishes of the American Revolutionary War. He and several thousand other men and women have helped to reenact some of the most important events of that War as part of our Nation's Bicentennial celebration.

Unfortunately, Perry wound up on the losing side. After meeting "the British" in Quebec, he joined their ranks. "I liked their uniforms better," the Peabody, Mass., resident explained.

When the decisive battle of the Revolutionary War was commemorated at Yorktown, Va., in October, Perry was one of the "Redcoats" who marched in surrender.

Reenacting historical events is hard work requiring careful research of uniforms, equipment and lifestyle, he said.

Reenacting also requires considerable skill. As a matross in his unit, "The Royal Regiment of Artillery," Perry had to load, fire and swab an 18th century artillery piece. In action, these field guns are maneuvered by hand spikes and dragropes.

* * *

The above is based on a story by Capt. Willa O'Rourke of the 362nd Public Affairs Detachment.

Photo by Capt. James O'Rourke

Perry surrendered with the British Army.

Meek isn't shy about flying.

1st Sgt. Terry Meek of the 810th Military Police Company, Tampa, Fla., isn't a great believer in automobiles. He prefers flying — in his own plane.

Meek, whose Lakeland, Fla., home is 45 miles away from the Tampa Reserve Center, has found commuting "as the crow flies" more economical than travel by turnpike.

He says gas for his CESSNA 172 is cheaper than fuel for his automobile and, as for travel time, he estimates his flying time from Lakeland to Tampa International Airport to be just 15 minutes. The Tampa airport is very close to the Reserve Center.

He has also used his plane to locate training sites for the 810th. For example, Meek recently used his CESSNA to recon the route of march to a field training area in the Withalacoochee National Forest. Members of the 810th say they're glad to have his "organic air support" in the MP unit.

Meek has been flying since he was 16 years old and has logged more than 2,000 flying hours. He currently has a private pilot rating and is working for his commercial license.

Three Reservists assigned to the 91st Division (Training), Sausalito, Calif., got some unexpected hand-to-hand "combat experience" during Annual Training at Fort Jackson last summer.

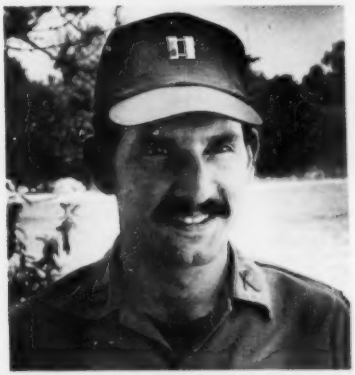
Capt. John W. Hugel Jr. and **2nd Lts. Eugene D. Ritchie** and **Michael J. Henry** were waiting for an early morning bus to take them from a Columbia, S.C., motel to the fort when four men offered to sell them marijuana. When they refused, one of the men pulled out a .32 caliber revolver, pointed it at Hugel's head, and threatened to blow his brains out if he didn't turn over his money.

The situation called for panic. However, Hugel, a San Quentin prison guard in civilian life, kept his cool and told the gunman, "You're not going to shoot anyone with that gun — there aren't any bullets in it."

When the would-be robber turned the gun around to check for bullets, the Reservist grabbed it, wrapping his fingers around the hammer and cylinder so it couldn't be fired.

As Hugel was wresting control of the gun, Ritchie and Henry grappled with the other assailants. Finally, Hugel turned the gun on all four of the hapless robbers and they fled to a nearby car driven by an accomplice.

After the struggle, the Reservists called the police and, before long, the five thugs were in custody. For the Reserve trio, the incident offered one more proof that they are ready, whatever the task.



Hugel and two other Reservists foiled a robbery.

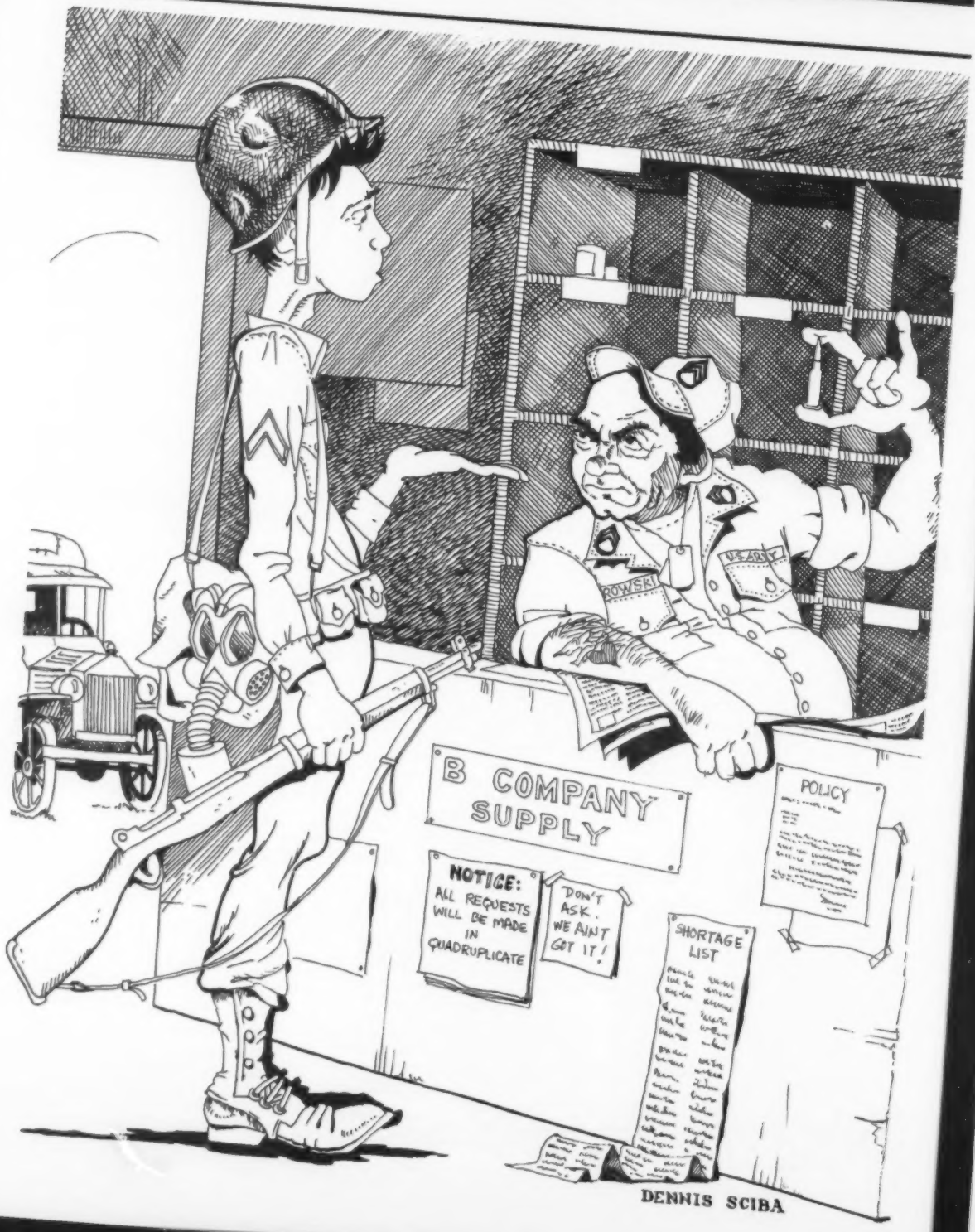
Denney uses her military skills in her civilian job.

Hugel, Henry and Ritchie all work with the 91st Division's Training Command.

Spec. 5 Rhonda Denney has adopted a new "family" in Newburgh, N.Y. That's how close the flight medic feels to her fellow members of the 336th Medical Detachment (Helicopter Ambulance), which is headquartered in Newburgh.

After separating from active duty as a flight operations specialist, Denney joined the 336th to learn to be a medic. Since completing the 91B Medic Course, she's become part of her unit's six-person "Emergency Team." However, that's not the only Emergency Team Denney belongs to — she's using her military training in her civilian job as well.

Denney, who works as a computer programmer for International Business Machines in Poughkeepsie, N.Y., coordinates Emergency Medical Team efforts in that office.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NOTICE: ALL REQUESTS WILL BE MADE IN QUADRUPLICATE
DON'T ASK. WE AIN'T GOT IT!
SHORTAGE LIST
POLICY
U.S. ARMY
DENNIS SCIBA

Army Logistics: Will We Make It to War?

by Capt. Bob Pratt

Have you ever tried to hug a ton of marshmallow?

That's what it feels like to write about logistics and the USAR.

"Logistics" is many things — supply, distribution, maintenance, people, facilities, and research and development. There's too much to cover. It's elusive. And it seems that there's no single authority who can tell you everything you want to know about logistics and its impact on the USAR's ability to mobilize.

* * *

However, the USAR's logistical picture — and that of the Defense establishment — continues to compete with manpower issues for the distinction of Number One Problem.

There's concern that we can't manufacture, transport and fix the *things* it takes to wage and win a war. What makes the picture frightening is the large role the Army Reserve will assume during a mobilization. The USAR will provide, for instance, 67 percent of the light equipment maintenance units, 35 percent of the supply and service units and 33 percent of the transportation truck units of the Total Army in war. The USAR will be a major supplier, shipper and maintainer. It will be the very definition of combat support and combat service support on the battlefield.

U.S. Army photo

The Army — not just the USAR — is short thousands of trucks.

THE SUPPLY PROBLEM

As the Chief, Army Reserve testified to Congress last spring, the USAR has roughly two-thirds of the equipment it needs in peacetime and one-third of its wartime requirements.

Why?

First, some of the equipment USAR units *would* have is socked away in POMCUS, or Propositioned Materiel Configured to Unit Sets. POMCUS is designed so that early deploying Army units have equipment to fall in on in a (European) theatre of war.

Second, some of the gear USAR units would have is held for those National Guard and Army Reserve units that are part of the Rapid Deployment Force (RDF). RDF has been formed to move quickly to the world's hot spots. One such spot is the oil-rich Persian Gulf.

Third, the full amount of equipment USAR units are authorized simply hasn't been procured.

The Department of Defense recently responded to a Congressional inquiry about the USAR's supply status. Here are some of the shortfall "biggies" included in the reply.

- *Trucks of all kinds.* The number we're short is roughly 6,200.
- *Carriers.* We're talking here about tracked mortar, personnel and cargo vehicles. The shortfall is roughly 1,640.
- *Telecommunications equipment.* The shortfall is worth over $2 billion.
- *Tactical automatic data processing equipment.* The worth of the stuff we're shy is over $116 million.

The Army will have to do a lot of homework before information about USAR equipment — "the right data base format" — can be used to fill the holes. It's a matter of knowing what we've got and managing the shortages well. Logistics staffs across the country *are* working hard to do just that.

The Defense Department's lack of conventional ammunition is shocking and well publicized. The Secretary of Defense disclosed to Congress in October 1981 that the U.S. has a ten or 11-day supply. As Army Chief of Staff, Gen. Edward Meyer put it, "We've been eating into our go-to-war ammo for a long time."

Equally well publicized is the shortage of spare parts for *everything.*

What do the shortages mean? Be sure the effects can't be measured precisely. But shortages can't help but be related to the mobilization missions of USAR units. It's tough to be a transportation company without enough trucks. It's hard to be a repair parts company and expect to support a maintenance operation without spare parts.

Despite the fact that USAR units will have a large maintenance responsibility in wartime, few Army Reserve maintenance units have the time and opportunity for intensive hands-on training. It's estimated that Army Reserve maintenance unit members have 280 hours each year that are potentially available for all types of training. This is equal to 14 percent of the training time available to Active Army members.

Many soldiers with very specialized maintenance MOSs never get to practice their wartime jobs. The equipment with which some of these units have to train is of a different generation from the gear that will have to be maintained in battle. Communications equipment is a prime example.

Reserve maintenance units in

Photo by John Pinderhughes for NW Ayer

The USAR has only a third of the supplies it would need during a major mobilization.

peacetime often report to organizations that are not necessarily maintenance-oriented. An implication is that many Reserve maintenance units don't receive due emphasis on maintenance training from higher headquarters.

These and other facts led the authors of a Logistics Management Institute study to conclude that the mission readiness of most USAR maintenance units is probably overrated.

The picture isn't as rosy as one would like.

TRANSPORTATION

Experts worry about "strategic mobility." That's the ability of the Active Army, National Guard and the Army Reserve to move their people and equipment in an emergency.

It involves moving troops and gear to seaports and air terminals for overseas deployment. It means having enough and properly placed planes (airlift) and ships (sealift) so that overseas movement will happen. It also means having sufficient prepositioned supplies in overseas locations. What's over there doesn't have to be hauled.

Some worry that the nation's railroad net — particularly its aging tracks — couldn't handle the weight a mobilizing Army would create. Others are concerned that America's highways couldn't handle a huge surge of military traffic. Concerns about our ability to marshall the necessary land transportation during an emergency have created extensive contingency planning between the Army and other parts of the federal government.

Still others worry that ports here and abroad will be hopelessly crowded. There's concern, too, about America's shrinking merchant marine fleet.

Here are some facts surfaced in discussion with Deparement of the Army officials.

- More *Army* heavy duty flat cars are needed for the early deployment of big equipment — tanks, for instance — within the continental U.S.
- Some Army installations, places to which USAR units would go first during a mobilization, may have serious trouble shipping deploying units to their next stops. Many things come into play here. The situation varies. What inhibits a post one day may not a short time later. The ability of installations to handle mobilizing troops is closely watched.
- The Nation's ammunition ports are known to lack the ability to handle the loads required by a major mobilization.

A consensus is that, despite the problems, there are enough military and civilian buses, trucks and rolling stock to move the Army and its gear to America's shores. The nightmare is coordinating the movement. Think of the details. Will there be materials to crate equipment destined for air shipment at a terminal used in peacetime only for passenger traffic? Will there be enough elevated moving passenger stairs at a small air field suddenly flooded with planes and soldiers flying to war?

The movement of people and equipment to overseas destinations is plagued by problems, too.

- We don't have enough fast roll-on roll-off (RO/RO) ships that can quickly deliver and dispense cargoes.
- We lack the ability to unload cargoes on beaches (Logistics-Over-The-Shore) on a large scale. That's a handy thing to be able to do when ports aren't around.
- We're shy sufficient numbers of big jet transports that can move the Army's weighty, bulky equipment.

As with moving troops and gear within the continental U.S., the job of coordinating overseas transportation during a mobilization would boggle the imagination.

Maybe the most important thing to remember about logistics during a mobilization is that your world would change dramatically once you reached your mobilization station. Things would happen very quickly, and they'd be complex. The supply, transport and maintenance of USAR units would be meshed with those of the National Guard and Active Army units. The stuff brought from your home station could well go elsewhere, and the equipment used by your unit overseas could come from POMCUS stocks.

This is a pretty dismal picture. Does the bottom line spell doom?

What can be said is that the Department of Defense is aware of what's wrong. Major Army commands have started to gather better information about where Reserve eqiupment is located and how to manage what exists. There are plans to buy equipment that the USAR is missing.

But the problems persist. And as old ones are solved, new ones seek solutions.

The following articles are meant to "open up" logistics a bit.

Will U.S. Factories Lose the Fight?

When and if a major conflict occurs, where will the Army get its beans, bullets and blankets?

The huge percentage of what it takes to fight a war would come from the nation's industrial base — thousands of contractors and subcontractors. Contrary to what some think, the Department of Defense doesn't hold these companies as a "captive" source. They're in private hands. In fact, DOD owns only 83 facilities for turning out war goods.

There's little hope, however, that these private companies could switch from commercial to military production to support a long conflict. "Nation's Business" estimates that it would take 18-36 months to increase production enough to make a difference on the battlefield.

The industrial base is weak. Industries that might have invested in military business have chosen to develop their technologies and build their plants for other purposes. That is due in part to the fact that defense contracts are awarded on a year-by-year basis. This makes many private businesses wary of long-term military commitments. Interest rates are high.

Minerals critical in making defense goods, including titanium, manganeze, cobalt and chromium are in short supply. There's a shortage of skilled labor. America may lose 250,000 machinists within five years.

Fortunately, government is waking up. Congress is looking at multiyear contracts, and many of 31 major hardware acquisition policy changes recommended by the Department of Defense are being implemented. But the industrial base will remain weak for some time.

What does this have to do with the USAR? General Miley tells the story.

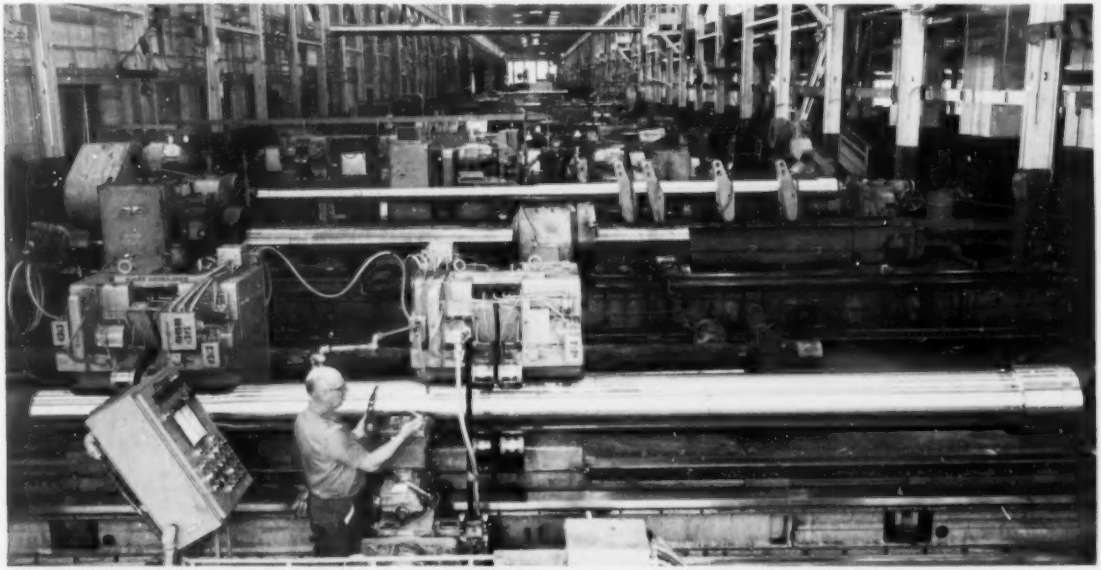
by Henry A. Miley

Reservists should understand the capability of the nation and its industry to mobilize and deploy the Reserve components of the United States in any future war. The growing superiority of Soviet military power combined with the election of a defense-minded American President has created interest in such subjects as force readiness, mobilization and industrial preparedness. The last time we did anything serious about these matters was during the Korean War, 30 years ago. Most of the people now in the saddle — in both industry and government — were too young (some of them weren't alive) to have played any major role in mobilizing the military/industrial structure to fight a war.

VIETNAM

Our military adventure in Vietnam, although costly in lives and money, lacked several of the classical aspects of war. Our deployed forces were never in danger of being overwhelmed by the enemy. Our national territory was in no danger of being attacked. We did not resort to mobilizing our Reserve Components (except for a few small, specialized organizations) or our industry.

The wartime experience of our current crop of military leaders is primarily restricted to the Vietnam war. Consequently, when they begin to think of a large war with all the classical attributes, the gaps in their experience begin to show. Their current



U.S. Army photo

DOD has only 83 war plants of its own. Mobilization would require thousands of commercial contractors. Here, cannon barrels are manufactured at Watervliet Arsenal, N.Y.

interest in readiness, sustainability, mobilization and industrial preparedness is understandable and healthy.

It appears from available evidence that the greatest shock to our military leaders is materiel lead time: the time it takes to place an order for, fabricate, test and field the hardware required to equip the Army. The sense of shock is aggravated by the low levels of war stocks on hand both of end items (trucks, for instance) and consumables — especially ammunition.

Here's what would be involved in equipping the Army Reserve if it was mobilized for an emergency in the near future. The USAR doesn't contain, by and large, significant combat elements. It's intended to provide very essential combat supporting functions without which fighting troops could not operate for very long.

Except for the USAR missions of operating the training base for individual fillers and furnishing some special forces units, much of the Reserve's working materiel is a military version of commercial equipment. This means that the procurement lead time for a good deal of its war materiel would be shorter than for tanks, helicopters and artillery pieces. The lead time for heavy combat items would depend on the supply priority assigned to USAR units.

Let's put a theoretical heavy vehicle story together. Let's assume that the lead time for a significant increase in combat vehicle production from factories used to producing at peacetime rates is nearly two years under mobilization conditions. Our experience in World War II supports this estimate. There is some evidence that the lead time, under present conditions, might even be longer. We read in the newspapers about the shortages of essential materials, trained production technicians, capable subcontractors and machine tool bottlenecks.

WHAT WOULD HAPPEN

To understand when the USAR would start getting any new tanks or armored personnel carriers it needed from the production lines, we'd have to consider two things. First, we'd have to fill up the deployed Active Army and National Guard units and provide for their consumption losses. Remember that they possess the combat elements that would first be deployed. Let's assume that both would have less than what's required for mobilization. Then we'd assume that the Active Army and National Guard shortages would be filled before those of the USAR training divisions. It would be some months after the shooting started before the USAR could expect any new heavy vehicles. Our analysis suggests that most of the heavy vehicles (and other combat equipment) which the USAR would require to operate training bases had better be on hand on Mobilization Day (M-Day) — or not much training, at least with combat vehicles, would be possible.

Some of the USAR's hardware requirements (trucks, bulldozers, generators, etc.) could be met with commercial equipment. If the situation dictated, this kind of equipment could be commandeered from the civilian sector, painted olive drab and shipped to where it would be needed.

WHAT IT MEANS

The foregoing analysis is imprecise. Its results are gloomy. But the broad outline is realistic and valid. *Simply stated, this is the conclusion: if the USAR is mobilized and needs long lead time equipment to perform its mission, the equipment had better be on hand.*

It's been said that in a Western European war deploying units would fall on prepositioned stocks and leave long lead time gear (tanks, artillery pieces, helicopters) at home. The stuff left at home would then be used to fill out the rest of the Active Army, National Guard and Army Reserve establishment. Let's hope the scheme works. It would be helpful.

* * *

Gen. Miley is the former commander of the Army Materiel Command, the organization now known as the Army Materiel Development and Readiness Command. He retired in 1975 with four-star rank. A life-long logistician, he's now the President of the American Defense Preparedness Association.

Being Unprepared Isn't New—

by Mr. D. Ballou, Editor of "National Defense" Magazine

A great myth persists, despite evidence to the contrary, that American industry can switch from production of peacetime goods to production of defense materiel in very rapid fashion — something like a giant fire hose spouting out great numbers of tanks, aircraft, ships and guns.

It doesn't happen that way and it never did.

The fact is that World War I was fought by American doughboys with equipment borrowed from our British and French allies. All too often that equipment was in short supply. Capt. Eddie Rickenbacker, perhaps America's most famous ace, flew French Spads. American divisions "went over the top" accompanied by artillery support from French and British guns.

Things weren't very much better during the very first years of World War II. Despite some frantic planning and special efforts, it was about two years before a mobilized and redirected industry began to turn out bombers, tanks and liberty ships that eventually smashed the Axis powers.

Even though wise men have told us that an ounce of prevention is worth a pound of cure, the American way has not supported industrial preparedness in peacetime or extensive wartime reserves of materiel and equipment.

* * *

Mr. Ballou is a retired Army colonel.

U.S. Army photo

The lack of spare parts plagues the Department of Defense. Pictured are tank roadwheel assemblies.

Army's Log Link: The DARCOM Story

by Lt. Gen. H. F. Hardin Jr.

The basic tasks for the Active and Reserve Components are relatively clear; the active forces maintain our overseas commitments, respond on short notice to non-NATO-contingencies, and provide the initial surge forces until the reserve forces can be mobilized and deployed.

These words, from U.S. Army Chief of Staff, Gen. Edward C. Meyer's 1980 White Paper, succinctly describe the basic mission of today's Total Army. This mission has at its heart an indispensable requirement — readiness.

Before mobilization can start, before the battle can be joined, before victory can be won, the Army must be prepared. Last year, in a report submitted to the 96th Congress, the Readiness Panel of the U.S. House Armed Services Committee defined readiness as "a balancing of manpower, investment, and operations and maintenance expenditures that produce a force structure capable of a rapid, sustained, and ultimately successful response to the threat."

Certainly the major challenge faced by today's Total Army — Active Army, National Guard and Army Reserve — is to provide full-strength units of well-equipped and well-trained soldiers ready to perform their wartime missions. Total Army materiel readiness is one of the primary responsibilities of the U.S. Army Materiel Development and Readiness Command (DARCOM). As the Army's materiel developer, DARCOM is tasked to support the Total Army anywhere, anytime, for as long as is required.

U.S. Army photo

M-48 tanks roll at Anniston Army Depot, Ala. Anniston is part of DARCOM's Depot System Command.

The Total Army is no longer a concept, but a reality, born of the need to muster all Army elements in the defense of American freedom. The Army needs all components to enable it to fulfill both its peacetime and its wartime missions.

THE USAR AND LOGISTICS

During 1975-76, the Army force structure changed from 13 to 16 active combat divisions. This action placed more equipment in the field and also changed the ratio of combat service and combat service support troops to combat troops — more "tooth," less "tail." This realignment of support to combat missions in the Active Army has placed greater reliance on the National Guard and Army Reserve for support of the Total Army.

Approximately 33 percent of the Army's tactical support units (including maintenance, transportation and ammunition) and about 25 percent of the Army's general support forces (including those in the transportation and mobilization base) are in the Army Reserve. The Army is so dependent upon the USAR logistics efforts that it probably could not sustain itself in a global war without the USAR.

Although equipment stocks are issued to the Reserve units, the actual dollar amount of equipment on hand has not kept pace with requirements.

Withdrawals to the Army's massive POMCUS (Prepositioned Materiel Configured to Unit Sets) program in support of the NATO alliance, as an example, has resulted in USAR equipment shortfalls. Additional funds provided by the FY 81 supplemental and FY 82 amended Army budgets will help to soften present shortfalls.

The FY 81 supplemental budget provides $25 million for the USAR for the procurement of communications and electronic equipment and other support equipment. This is meant for USAR units that are identified on the Intensive Management Force List, which includes the Rapid Deployment Force (RDF) and early deploying units.

The equipment includes night vision sights, radio sets and teletypewriter terminals. Additional equipment includes 4-inch fuel hose line, liquid gas pump assemblies, gas generator sets, collapsible tank assemblies, forklift trucks and electrical repair shop equipment. This helps to make USAR support of the Total Army possible.

DARCOM

DARCOM is responsible for the total life cycle management of Army materiel, from research and development through wholesale distribution, maintenance and supply support. The command also serves as the Department of Defense Single Manager for Conventional Ammunition and acts as the Army's executive agent for security assistance, including foreign military sales.

Through subordinate commands, DARCOM manages the Army's depots, arsenals, ammunition plants, test centers, proving grounds, maintenance facilities, laboratories and procurement offices throughout the United States and overseas. DARCOM, however, doesn't stand alone. The Defense Logistics Agency and the General Services Administration, as well as DARCOM, make up the total logistical base. In time of war, these agencies provide approximately 50 percent of the Total Army requirements, including food, clothing, assigned repair parts and petroleum.

U.S. Army photo

Stockpiled tires reflect the immensity of the Army's supply inventory. DARCOM manages the "life cycle" of the Army's materiel from the research and development stage on.

READINESS

DARCOM's main contribution to readiness is through the command's maintenance and supply missions.

The supply support for more than 850 units and installations worldwide is through the direct support system (DSS). The system serves units such as division and non-divisional maintenance battalions (direct support units), division supply and transportation battalions, supply and service battalions, central issue facilities, installation maintenance facilities and self-service supply centers.

Under DSS, supplies, particularly repair parts, are distributed by air and surface means from the wholesale (depot) level to direct support and general support units. DSS bypasses former intermediate levels of supply, such as overseas depots and supply activities in the U.S. The USAR in its totality is supported by DSS.

Shipments of supplies and equipment to the eastern U.S. and Europe originate from New Cumberland Army Depot, Pa.; shipments to the central U.S. and Central and South America originate from Red River Army Depot, Texas; and shipments to the western U.S. and the Pacific originate from Sharpe Army Depot, Calif.

DARCOM's air line of communication (ALOC) is an extension of DSS. It capitalizes on the large quantities of materiel that can be transported rapidly by plane. ALOC deals exclusively with the supply of repair parts (class IX materiel) and selected secondary items of equipment (class II materiel). ALOCs operate to Europe, Korea, Alaska and Hawaii.

Not all Army units are desig-

nated as ALOC units. An ALOC unit must be a DSS unit, have a repair or rebuild mission, provide resupply of fast-moving Class IX repair parts and have a critical mission. In the event of mobilization, many USAR GS/DS units deployed overseas will be supported by ALOC.

An important part of DSS is the Logistics Intelligence file (LIF), maintained by DARCOM's Logistic Control Activity. The LIF provides supply and transportation data on all Army requisitions (excluding bulk petroleum, ammunition and subsistence supplies — food). Through remote terminals, installations in the U.S. can ask the file to determine requisition and shipment status. Simply stated, the LIF can track a repair part and know its whereabouts from the date of the customer's (user's) requisition until the customer receives the part.

DARCOM also manages a worldwide Logistic Assistance Program that includes a network of Logistic Assistance Offices (LAOs) attached to major field command headquarters and installations. LAOs provide technical guidance and assistance and get involved with day-to-day supply and maintenance problem solving. LAOs have expanded into the USAR since the mid-1970s.

U.S. Army photo

War goods are readied for overseas shipment from New Cumberland Army Depot, Pa. The facility handles shipments of materiel to the eastern U.S. and Europe.

MAINTENANCE

No logistics function is more vital to readiness than maintaining the Army's weapons and equipment. It's extremely important for the USAR because 67 percent of the Army's light equipment maintenance units mobilized in wartime would be Army Reserve units.

The backbone of the maintenance system is DARCOM's Depot System Command (DESCOM). DESCOM has 11 depots and six depot activities in the U.S. and a depot and depot activity in West Germany.

The maintenance missions of these facilities involve everything from intricate communications - electronics equipment to main battle tanks. The depots generally specialize in the repair and overhaul of selected weapons and equipment systems. For example, most of the Army's tanks are repaired at the Anniston Army Depot, Ala., while the bulk of aircraft maintenance is performed at Corpus Christi Army Depot, Texas.

MUTUAL SUPPORT

USAR units train regularly at DARCOM installations. It involves both Annual Training (AT) and Inactive Duty Training (IDT). During FY 80 and 81, approximately 213 Army Reserve and National Guard units totalling more than 30,000 individuals trained at DARCOM posts. Of this total, 74 percent were USAR soldiers.

DARCOM installations are helping USAR units by providing them with hands-on individual MOS training and with opportunities for units to perform actual mission tasks.

Two advantages result from this training. First, USAR units get to practice the very skills they will have to use in wartime. Second, Army Reserve units help DARCOM do its job by carrying out installation support tasks. Examples include ammunition renovation, rewarehousing of general supplies, maintenance of facilities and roads, assistance to installation security forces and the movement of materiel to control storage costs.

SCHOOLS

DARCOM schools support Reserve Component logistics training. It's offered through correspondence and through on-site or accredited off-campus instruction. The majority of the training is conducted at the Army Logistics Management Center (ALMC) at Fort Lee, Va.

Training is also conducted in resource management and data processing at the Army Management Engineering Training Activity, Rock Island, Ill. Ammunition-related subjects are taught at the U.S. Army Defense Ammunition Center and School, Savanna, Ill.

ALMC conducts two formal Reserve Component programs — a logistics education program and a research and development education program. Roughly 2,000 USAR and National Guard officers and enlisted members were involved with the schools during FY 81.

Two programs geared exclusively to the Army Reserve logistician are the Mobilization Designation

(MOBDES) Program and counterpart training. More than 800 officers and enlisted members are assigned to DARCOM as mobilization designees. The command will depend heavily upon these individuals to augment its work force in the event of mobilization.

Individual Ready Reservists are training with DARCOM on an increasing scale. The work they do, arranged through their Personnel Management Officers and NCOs in St. Louis, is directly related to the Military skills they possess.

ARMY CAPSTONE-DARCOM AUGMENTATION

Department of Defense exercises MOBEX 78-Nifty Nugget and MOBEX-80 Proud Spirit confirmed that DARCOM could not adequately support a full mobilization and short-warning NATO operation without beefing up its depot work forces right at the start. The command has to support both mobilizing Army Reserve and National Guard units and all units deploying to or already in the theatre of war.

The Army's maintenance and supply needs are particularly critical because depot maintenance is one of the primary sources of supply during the first 90 to 180 days following mobilization.

That's why DARCOM will be assisted by 36 Army Reserve and National Guard units under the Army CAPSTONE-DARCOM Augmentation Program. It's being run under the Army CAPSTONE program, and, specifically, the Army "Quick Fix" Program.

Units assigned a Quick Fix mission are identified as early-mobilizing, late-deploying organizations. They will mobilize at a designated DARCOM depot, reporting within 72 hours of their alert. Following completion of their DARCOM missions, they will immediately begin preparation for deployment in accordance with their mobilization plans. The time the units will be assigned to DARCOM varies from 30 to 180 days.

ON THE HORIZON

Opportunities for interaction between the Reserve Components and DARCOM are increasing and can be expanded. The Reserve Components have the preponderance of the maintenance units that support the Total Army. For example, 67 percent of light equipment maintenance units are in the USAR. These units must be ready on M-Day if the Army is to sustain the force in combat. With the systems being fielded during the next few years as the force is modernized, the training requirements for USAR units will increase significantly.

For instance, those units identified in the CAPSTONE plan and scheduled to support V and VII Corps in Europe must train now to maintain weapon systems that are not programmed for issue to them for several years. This problem is being examined throughout the Army, but perhaps the best way to achieve the required readiness in these maintenance units is through a technical training association under the DA-funded DARCOM Reserve Components Affiliation Program with DARCOM's Depot System Command.

The program is designed to improve the operational readiness of high-priority USAR and Army National Guard units. DARCOM is ready and able to participate in such a program. It may well be the best solution to the Army's steadily increasing sustainability problems.

It also appears that DARCOM's overall logistics support role is going to expand even more into the forward areas. This means that the command will be working even more closely with USAR units that are able to train at DARCOM facilities.

Certainly without the Army Reserve the Army can't get there from here. DARCOM looks forward to continuing and expanding its mutual support programs with the Army Reserve — so that the Total Army can attain the strength it needs to keep America strong and, in being strong, remain free.

* * *

Lt. Gen. H. F. Hardin Jr. is Deputy Commanding General for Materiel Readiness at U.S. Army Materiel Development and Readiness Command (DARCOM) headquarters, Alexandria, Va.

U.S. Army photo by Leroy Davis

Troops of the USAR's 144th Transportation Company unload oil drums during Sharpe Army Depot's Combined Operations Logistics Transportation Training (COLTT) 1981 program.

Points

Help is on the way for Reservists in getting their retirement points straight.

RCPAC has recently improved its retirement point recording system. It's the result of a study done last summer at RCPAC. The study found that retirement point records were coming into RCPAC from so many different sources that the chance for error in processing points was high.

To reduce the confusion, the study recommended elimination of RCPAC's five different point recording systems. The effort now underway will consolidate these into one computerized system. The new arrangement will record accumulated retirement points and report annually to each Army Reservist on the points earned to date.

The design of this Data Bank Management System is scheduled to be completed by July 1982. Full implementation is set for October 1982.

Meanwhile, all records on hand are being combined as much as possible and point accounts in the system will be started for all USAR members.

AGUZ Form 115, the statement of annually earned retirement points mailed to Reservists each year, will be eliminated. A new annual report, AGUZ Form 249, will show the points earned in all years of service including the current year. This report will first be mailed to USAR members with October Retirement Year Ending (RYE) dates by the end of December 1981.

AGUZ Form 249 will effectively eliminate the procedure by which a complete Statement of Service is provided only twice during a USAR member's career. The form will show only the totals of points earned each year and not the details of how points are earned.

Note that the first Form 249 may be incorrect for past years. Remember that records are still being assimilated into the new data bank. *You should request corrections only if there are errors in the current year.*

But if the AGUZ Form 249 received in the second year contains errors in points earned in years *past*, then you should ask RCPAC for corrections and provide the supporting documents to back up your request.

In addition to the annual statement, the RCPAC computer will automatically produce a 20-year retirement letter, provide an explanation of the Survivors Benefit Program, and start retirement processing for Reservists at age 59 years and six months.

IRR Enlisted

Here are a few of the enlisted MOBDES (Mobilization Designation) jobs available for USAR NCOs who are members of the Individual Ready Reserve.

Note that MOBDES position vacancies change constantly. That's because the Active Army organizational structures of which MOBDES positions are a part change constantly. So if a position vacancy does not exist in your particular MOS today, it could tomorrow. The Personnel Management NCOs in St. Louis screen all requests made for positions as new lists of vacancies are published. The toll-free number to call is 800-325-1876. Ask for Sgt. 1st Class Bercu.

- 35P . . . Fort Monmouth, N.J.
- 32Z . . . Fort Monmouth, N.J.; Fort Belvoir, Va.
- 33S . . . Fort Huachuca, Az.; Fort Devens, Mass.; Fort Meade, Md.; Fort Monmouth, N.J.
- 54E . . . Fort McClellan, Ala.
- 62B . . . Fort Belvoir, Va.

There are also numerous admin, supply, medical and intelligence MOS vacancies. Again, things change constantly. It's wise to stay in touch.

You'll see articles in this issue of the *Army Reserve Magazine* that talk about *unit* training at Army depots. What about individual training? If you're in the IRR and you have a maintenance or supply MOS, there are similar opportunities. Call the toll-free number above and ask about them.

* * *

Contrary to what some may think, RCPAC *does* go out *to* the troops. If you want an example, try the Chemical Conference scheduled for February 1982 at Fort McClellan, Ala. That's when IRR enlisted members with chemical MOSs (the 54 Career Management Field) can meet personally with RCPAC's enlisted management crew. One of the big reasons for the conference is to provide Individual Ready Reserve members training in their chemical skills with the Active Army. A good deal of this training is available through chemical MOBDES assignments with Active Army units.

Interested? If you have a chemical MOS, if you're assigned to the Individual Ready Reserve and if you'd like to meet some RCPACers face-to-face, then call Sgt. 1st Class Burris or Staff Sgt. Ehrenreich at 800-325-4095. No charge.

Retirees

How do you apply for retired pay? When? Is there *anybody* to talk to before you reach age 60?

The people who handle retiree matters at RCPAC can be reached at 800-325-2660. Keep in mind the Central Time Zone. The commercial (toll) numbers are (314) 263-0534/0527/0349. You can also write to the following address: Commander, RCPAC, ATTN: AGUZ-RA, 9700 Page Blvd., St. Louis, Mo. 63132. If you write, make sure to state the questions you want answered or matters you want handled right up front.

A Reservist should apply for retired pay about three months before his or her 60th birthday. Application forms, DD Form 108, are available from RCPAC and most USAR units. However, about six months before the 60-year mark, RCPAC mails a pre-retirement package to members of the Retired Reserve. It contains the DD Form 108 and instructions on how to apply for retired pay.

Retired pay is computed by totaling the number of qualifying points earned and dividing by 360. This figure represents an equivalent number of years of continuous active duty service, which is then multiplied by 2.5 to determine the percentage of active duty pay which a retiree will receive as Army Reserve retired pay.

For example, a Reservist with 3,600 retirement points will receive 25 percent of the base pay of an active duty soldier of comparable grade and years of service for pay purposes. A Reservist retiring at the grade of E-6 with three years of active duty and 17 years of Army Reserve service could expect a monthly pay check of $186, based on current rates.

All loaded and ready to go, cadets Alan Janusziewicz (left) and John Lambusta await the command to fire. They were among nearly 100 ROTC cadets to volunteer for supplementary field training at Fort Dix, N.J., in September. Janusziewicz is a molecular biology major at the University of Pennsylvania and Lambusta is a business marketing student at Glassboro State College, Glassboro, N.J.

A University of Pennsylvania ROTC cadet displays more determination than technique in climbing the vertical ladder of the Fort Dix confidence course. The ladder, which reaches more than 30 feet into the air, consists of irregularly spaced rungs which are exceedingly difficult to climb quickly.

Photos by Dick Crossland

Cadet Veronica Weeks takes her turn on a seemingly innocent device designed to frustrate your every effort to cross it. The rolling log is part of the Fort Dix confidence course and requires soldiers to lean forward and grab the log ahead while balancing on two other freely rolling logs.

ROTC Cadets Crawl, Climb for Confidence

by Maj. Dick Crossland

There is nothing quite like an early fall overnight camping trip to the pine barrens of central New Jersey to invigorate the soul.

In this case, however, the pine barrens were part of a Fort Dix maneuver area; and the camping trip was part of a training exercise.

Nearly 100 ROTC (Reserve Officer Training Corps) cadets were organized for a weekend of land navigation, marksmanship and confidence courses. Most were ROTC scholarship students at the University of Pennsylvania, although cadets also came from New Jersey's Glassboro State College and Rutgers State University at Camden.

Cadets also dined on cold C rations, spent a night on the forest floor, conducted weapons familiarization and boned up on map reading. The last proved essential, as everyone tackled his way through a night navigation course.

The weekend left the younger cadets better prepared for next summer's ROTC summer camp and gave the seniors — next spring's Army lieutenants — a crack at leadership.

Cadet Nicole Vandevoorde practices assembly and disassembly of the M-16 rifle during supplementary field training at Fort Dix, N.J. An accounting major, Vandevoorde is a second-year ROTC scholarship student at the University of Pennsylvania.

OUCH! Cadet Lori Lucas grimaces as Cadet Sheryl Weiss (right) removes a splinter from her finger. As Lucas put it, "It could have been worse. I could have broken a fingernail." Cadet JoAnn Peterson, Philadelphia College of Pharmacy and Science, provides the expression of concern.

Tobyhanna:

Depot Training Helps USAR "Rope Whales"

Photo by Stan Warunek

Sgt. Joseph Marinak (left) and Spec. 5 Paul Reid repair a tactical radio set during training at Tobyhanna Army Depot. Marinak and Reid are assigned to the USAR's 298th Maintenance Company in Altoona, Pa.

by Henry Kearney

Have you ever tried to lasso a whale? For many USAR combat support and combat service support units, training to handle and maintain Army gear is like trying to rope Moby Dick.

As new weapons and equipment are developed, these units, responsible for a large part of the Army's wartime logistics support, often have a low supply priority.

Once they are mobilized, how can Reservists be expected to handle and maintain equipment they have never seen? This experience and training "gap" contributes to what the Army's Chief of Staff calls "the hollow Army."

That's why imaginative efforts like the Inactive Duty Training (IDT) program run by Tobyhanna Army Depot in Pennsylvania are so important. This unique arrangement allows USAR members with several logistics and maintenance MOSs to gain hands-on training with equipment for which they'll be responsible in wartime.

IDT FILLS TRAINING GAPS

The sprawling Tobyhanna facility is a boon for Reservists because of the variety of the work performed there. The Depot, located in the Pocono Mountains, rebuilds and repairs gear ranging from radios to teletypewriters to generators and air conditioners for radar vans. Tobyhanna also stocks thousands of repair parts, known as "line items," and packages war materiel for shipment worldwide.

Twenty-six company-size units from six states have joined the IDT program and are sending 11 to 120 soldiers to the Depot for training. Francis Regan, the Depot's Mobilization Plans and Training Officer, runs the effort. Things are tailored to complement the two weeks of Annual Training taken by many of the participating units at Tobyhanna.

The average company comes to the Depot on four weekends between Annual Training assignments. On most weekends between early October and late April, Reservists begin arriving for their IDT work by noon on Friday. After a night in the barracks, they report to their jobs by

7:30 Saturday morning.

Regan noted that, on a typical weekend, advance parties of Reserve officers and NCOs meet with Tobyhanna officials to plan training assignments in the various shops and warehouses. "We do our best to give work to Reservists that fits in with their training needs," he said. "We coordinate with their unit supervisors and with the civilian technicians in our shops to arrange the right work schedules. This is so individuals in a unit can progressively develop their MOS skills." For example, a USAR member learning to be a crane operator might start out on a forklift and then move out of the warehouse to operate a rough terrain forklift before taking on the 25-ton crane.

Before leaving Tobyhanna after an IDT weekend, Reservists complete 12 hours of training under the leadership of unit supervisors and the Depot's mechanics and supply specialists.

Some of the units taking part in the ten-year-old IDT program have "Quick Fix" missions at Tobyhanna. In the event of mobilization, these units would report to the Depot within 72 hours of their alert to help Tobyhanna's work force with the expected mission surge. Within two and a half months, all of these units would deploy overseas. For Quick Fix units, IDT at the Depot means a boost in

Photo by John Pinderhughes for NW Ayer

Spec. 4 Arma Jean Mullens of the 677th Supply Company, Camden, N.J., inventories repair parts at a Tobyhanna warehouse.

Photo by Dick Crossland

A Reservist finds out what it's like to operate a rough-terrain forklift in a driving snowstorm at the Pennsylvania Depot.

being prepared for mobilization's first critical stage.

SOME MISSING LINKS

Although the Tobyhanna program is an ideal training situation for Reservists, it can't provide everything they need to know. Important links are missing.

For example, due to the Depot's mission and the limited time available on weekends, the IDT program concentrates on individual skills — not unit skills. After deploying in a mobilization, USAR maintenance units would have to make a strong group effort to repair large numbers of generators and other types of equipment. Reserve supply companies might be expected to take over entire receiving, stocking or shipping operations. Unit commanders and NCOs would have little time after mobilizing to develop the unit cohesiveness needed to accomplish these tasks.

Another drawback to training at depots is that Reservists aren't exposed to the environment they will face if the balloon goes up. Using depot level tools, test equipment and procedures doesn't adequately prepare them for their overseas jobs.

Most Army Reserve maintenance units have direct support and general support missions. In other words, in wartime, they will be expected to replace defective engines and transmissions, repair equipment parts or perform extensive body work on vehicles and machinery. This is a lot different from depot overhauling and rebuilding operations. Sgt. First Class David Vandenbaard, an Army Reserve unit evaluator assigned to Tobyhanna's Maintenance Directorate, emphasized that "it's hard to duplicate messy field conditions in a nice, air-conditioned depot building."

Despite the limitations involved in depot-level training, the IDT concept at Tobyhanna would work wonders for the USAR if it were adopted at other Army depots and arsenals. A Department of Defense study concludes that many Army Reserve maintenance units are not capable of performing their wartime missions. It notes that one of the major causes is that units lack modern equipment and facilities.

Tobyhanna helps many USAR units bridge the preparedness gap caused by these shortages. Will other depots follow the good example set by Tobyhanna?

It's Working At Anniston Too

Tobyhanna isn't the only Army depot setting a fine example. Training innovations are also taking place in Alabama's Appalachian foothills.

At the Anniston Army Depot, the free world's largest tank rebuild facility, USAR units from across the Southeast are gaining experience that just isn't found elsewhere.

Although the emphasis is on the maintenance of heavy combat equipment, the variety of skills that can be developed seems endless.

USAR soldiers help Anniston manage its vast quantities of ammunition. There's missile maintenance to be done. And there's the constant job of running a depot, a responsibility that requires the less-than-dramatic tasks of packing, stacking and crating.

Troops with rare "low density" combat support and combat service support MOSs can usually find the training they need at Anniston. All it takes is a little coordination between units spending AT at the Depot and Depot supervisors.

Soon the effort at Anniston will involve both AT and IDT. In fact, Depot technicians are now helping units with mission training during weekends at Reserve centers. It's hoped that the Depot can extend its training relationship with even more USAR units. *The facilities, technicians and materials that Anniston, Tobyhanna and other installations possess needn't go begging. They can be asked for.*

U.S. Army photo

Anniston technician works on a tank body. The expertise of the Depot's employees is an invaluable training asset for USAR units.

Getting Bread to the Troops:

Behind Every Good Soldier There's a Baker

by Lt. Col. Richard W. Weinz

How does bread get from ovens to soldiers' mouths in battle?

It isn't easy. Like most aspects of logistics, it's complicated and plain, hard work. Getting bread and other food to fighting troops is part of the service function of logistics called *field services*. In war, a combination of USAR supply and service units would provide the Total Army with roughly one third of its field services capability.

In combat, the standard is to provide, when possible, each soldier with at least one hot meal every day. The remaining daily meals would be the individual combat ration, called the MRE or Meal Ready-to-Eat. As combat leveled off, the number of hot meals available would increase. These meals would be prepared using the ingredients from the "B" ration, or items that don't need refrigeration.

The menu in war can get pretty dull. That could be dangerous because soldiers could lose interest in eating. When soldiers don't eat well, their ability to fight declines.

This is why freshly baked bread, the only perishable B Ration item, is important. It helps keep meals from getting dull and it's nutritious. Each soldier would be issued half a pound of bread a day while subsisting on the B Ration menu.

In peacetime, bread and bread products for the Active Army are procured commercially. In Europe and Korea, the baker is the Army and Air Force Exchange System.

Upon mobilization, the USAR would provide two kinds of baking organizations to support the Army in a theatre of war. The bakery section of the field service company would produce fresh bread for approximately 16,000 divisional troops. The bakery section of the supply and service company would bake bread for 15,000 nondivisional troops on an area basis.

WOW,...LOBSTER BISQUE, ARTICHOKE AND MUSHROOM SALAD, PHEASANT UNDER GLASS! CROISSANTS, CHOCOLATE MOUSSE.... EVEN ESPRESSO!
1ST DIV.

Artwork by Chuck Lankford, Baltimore Evening Sun

Pheasant under glass is hardly staple wartime fare. However, with hard work, fresh bread is made available.

THE BREAD

Since bread is the only perishable B ration entree and must be prepared just prior to issue, a lot of coordination is needed to get it baked and distributed. Bread-baking outfits must allow roughly five hours to cool and bag their product. Then the bread must make its way through the Class I section of supply points to soldiers for consumption within 48 hours.

The basic ingredients of field bread are flour, sugar, shortening, salt, milk and yeast. The nice touches like raisins and wheat would be added to bread when wartime logistics systems made them available.

THE BAKERS

The bakery section of the field service company serving a division in war would be located in the corps area. It would receive its raw ingredients from a general supply (GS) company and, in turn, would deliver the finished bread to the division's Class I supply point. The bread makers would find out from the Class I section of the Division Materiel Management Center (DMMC) just what the daily bread requirements would be.

Using its two-day supply of ingredients, the bakery section would then begin the seven-step baking process. The steps are: weighing and measuring; mixing; fermenting; make-up; pan proofing; baking, and cooling, bagging and storing.

It takes about eight hours to make bread from one dough mix. In the meantime, fresh dough would be started through the seven steps until batches were produced at the rate of one batch every 30 minutes.

Field baking would be a seven-day-a-week operation, and the duty shifts would be staggered. In this way, the people responsible for a particular phase of the operation would be on the job at the right time.

The first crew to arrive would mix the dough and put it in dough troughs for fermentation. The crew would need roughly 2½ hours to do the first cycle of its work. Then the make-up crew would begin its shift. Make-up means dividing and molding the dough into loaves and putting the dough into pans. Panned bread would be put in proofing cabinets.

Five hours after the mixing

crew arrived, the first dough would be baked. Oven operators would take care of this phase. Baggers would be needed approximately 7½ hours after the first crew started its work — it would take that long to go through the mix, make-up, proof, bake and cool phases. Once the steps were completed, fresh, hard-crusted bread would be ready at the rate of 432 pounds every 30 minutes.

Under normal conditions, field bread (without preservatives) would remain mold-free for about four days after baking. Using the white bread recipe, 100 pounds of flour and other ingredients would yield 150 pounds of baked bread. Based on a daily divisional requirement, 5,330 pounds of flour would be needed to produce 8,000 pounds of bread for 16,000 soldiers. Each bakery organization would require constant resupply to continue daily operation. The capability of each bakery would be limited by the equipment design capacity, the time that preventive maintenance would take equipment out of action and the moving necessary to stay near the supported division.

HELP FOR THE USAR

The success of bakery units would depend solely on their people. Since field bread is not required to support the usual dining facility meal, constant training is required to keep bakers technically proficient in making bread during mobilization. This is especially true for the USAR.

Chuck Villars, chief of the Baking Branch of the U.S. Army Quartermaster School's Subsistence and Food Service Department, is an enthusiastic supporter of USAR bakers.

His instructors are not only teaching bakery theory to Army Reserve members in the classroom. The School also uses a 96-foot-long tent for hands-on training. A two-week Mobile Field Bakery Training Program has been developed specifically for USAR soldiers. Because of the special requirements of field bakery operations, the course stresses the importance of proper scheduling and its effects on the management and operation of the Mobile Field Bakery Plant. (The Plant, designated M1945, was modeled after the British Mobile Bakery System).

As baking field bread involves both physics and chemistry, USAR students receive detailed instruction in calculating water and ice requirements. They also learn the methods involved in making *quality* bread batch after batch. Instruction includes the preventive maintenance needed to maintain a bakery unit's diverse assortment of equipment (from mixers

Photos by Dick Crossland

Spec. 4 Bruce Keen of the 442nd Field Service Company, Bellefonte, Pa., dumps bread into a fermenting pan. A field service company can make four tons of bread a day, enough to feed 16,000 troops.

to generators). There's one subject the School stresses very much and which no baker can ignore: sanitation.

EQUIPMENT

Mobilizing USAR bakeries would bring with them equipment that is technologically 40 years old. The U.S. Army Natick Research and Development Command is studying a new Mobile Field Bakery System which should include the latest state-of-the-art equipment. The new machines would satisfy a joint service technical requirement.

Gus Dimino, the Reserve Component Coordinator at the U.S. Army Troop Support Agency at Fort Lee, Va., has conducted a detailed technical inspection of each mobile bakery. The results of the inspections will be used by the U.S. Army Troop Support and Aviation Materiel Readiness Command to provide better repair part support and to identify the modifications necessary to standardize equipment components.

Nothing, but nothing, sells as well as fresh field bread. Its heady aroma lifts morale and builds appetites. But it takes work to make it happen.

* * *

Lt. Col. Weinz is assigned to the Logistics Division, Office of the Chief, Army Reserve.

WAY BACK WHEN

Army food today is generally recognized as quite good. But it hasn't always been that way. During the Civil War, rations were often only salt pork and hard tack (a biscuit of concrete-like consistency). The typical "Billy Yank" or "Johnny Reb" prepared his chow by frying the grease out of the pork, then soaking the hard tack in the grease until it became soft enough to bite without breaking a tooth.

Soldiers supplemented this meager fare with whatever else they could beg, buy or steal. When Gen. William T. Sherman's army passed through an area, for example, it was said that no rooster survived long enough to crow twice.

Capt. Jim Currie

Getting bread from ovens to soldiers' mouths in battle isn't easy.

Photos by Dick Crossland

A member of the 442nd Field Service Company loads bread into a proofing cabinet. Bread is proofed for an hour to allow the dough to rise before baking.

COULD YOU GET BY ON $2,000 LESS THIS YEAR?

Remember when you used to think of your part-time Army Reserve income as "fun" money? Today, it's more likely food money.

Most reservists depend on the Army Reserve's financial benefits as much as the Army Reserve depends on their contribution to the unit. We mentioned the extra income. There's also the low-cost life insurance and PX privileges to help you cope with inflation.

Something you may not think about is the retirement pay you earn each meeting. Did you know you can start getting USAR retirement checks as soon as you're 60? So if you plan on working your regular job until you're 65, you can supplement your regular income with an extra Army Reserve retirement income, each year from age 60 for the rest of your life.

It really pays to "go for 20." So stay with us. We need you.

Ideas from the Field: Logistics

Using Full-Timers Productively

by Maj. Peter D. Calvert

The Full-Time Unit Support Program (FTUS) is now placing full-time USAR *and* Active Army people with Army Reserve units around the country.

One reason for these full-timers is to provide year-round, specialized attention to such things as property accountability, maintenance and mobilization logistics. The idea is to assign these logistics full-timers to appropriate unit sections and platoons.

FTUS soldiers assigned to USAR units in FY 1981 have done a good job. Logistics staffers, in particular, have helped eliminate the backlog of administrative work.

But the necessary daily maintenance of units' logistics systems just won't fill up the full-timers' work weeks. Without a bigger challenge, these soldiers will become underutilized within a short time after the backlog is removed.

WHAT TO DO

The challenge is training. *Logistics is training.* It isn't enough to have a few selected individuals capable of maintaining and supplying a unit before and during a mobilization. Individuals, squads and platoons have to be just as capable.

This means that the logistics full-timers will be the technical advisors and operators for the training management officers and NCOs. They will also have to recommend ways to *improve* the USAR logistics system.

How's it done? The first step is knowledge. Full-time logistics staffers should know the unit's mobilization mission. They should be familiar with the Army Training and Evaluation Program (ARTEP) manual. They should also understand post-mobilization missions, CAPSTONE or affiliation relationships, and the unit's training and Annual General Inspection deficiencies.

With this knowledge, these staffers can help organize training by tasking lists under the Battalion Training Management System (BTMS). The lists can be developed for individuals, sections, platoons and companies. It's a good way to start building the logistics expertise of *everyone.*

Logistics full-timers can help make the task lists worthwhile by latching onto every opportunity for hands-on training. Nearby Department of Defense installations, for instance, could provide the materials, land, experts and equipment required to build a unit's logistical skills. The same is true of Active Army installations.

IDT time can be planned to inventory and maintain section and platoon equipment. Soldiers can even be given meaningful training by tasking them to manage command-wide excesses, transfers of equipment between units and the placement of supplies in Equipment Concentration Sites.

All it takes is the imagination and initiative of full-time logistics and training staffers.

Many logistical problems in USAR units have been blamed on the lack of manpower and time.

Routine tasks often burden a commander and his staff to the point where solid recommendations are never presented in a manner that helps improve things.

This is why logistics full-timers have to be on top of all new policies, directives and changes in unit (Mobilization Table of Organization and Equipment) organization. They must talk constantly with the Active Army unit with which their unit is affiliated. This contact is important, as USAR unit and Active Army unit logistics staffers should share each other's woes and solutions to problems.

In short, logistics full-timers must be the *commander's* technical advisory staff.

So the job of USAR and Active Army logistics full-time staffers goes beyond day-to-day supply and maintenance duties. It involves assisting (not infringing upon) training staffers to increase the logistics skills of all unit members. It means giving informed technical advice. It includes going after every available training opportunity.

The job will get done when commanders challenge their full-time staffs to do it.

* * *

Maj. Calvert is the Deputy DCSLOG for the 79th ARCOM in Willow Grove, Pa.

Signal Maintenance Training Tips

by Lt. Col. Jorge Arce

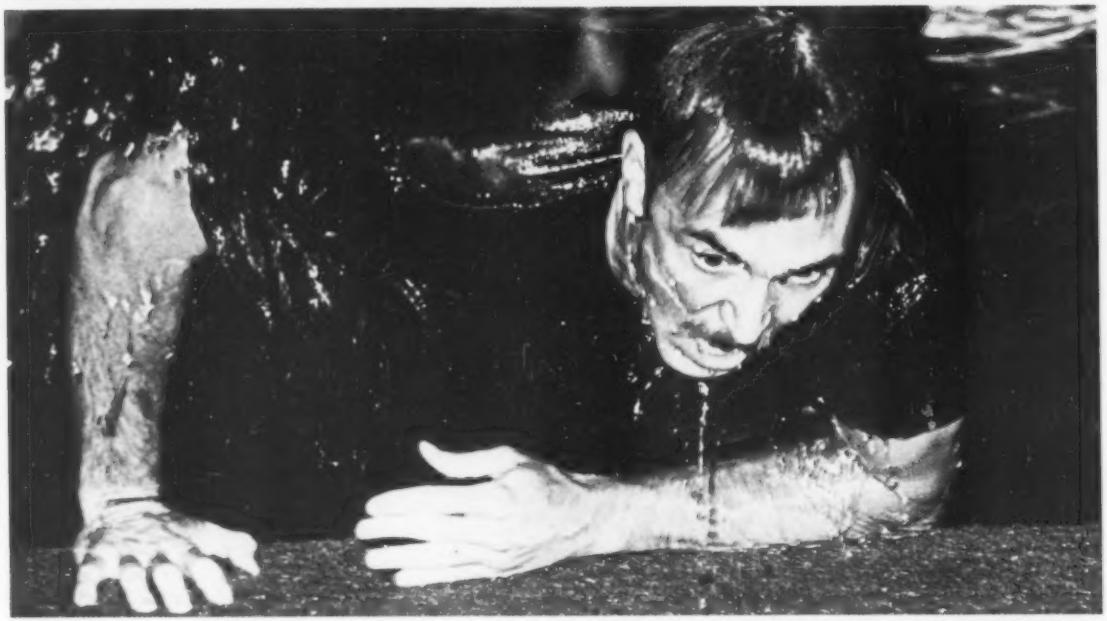
If the USAR is mobilized, how will Reserve soldiers with communications maintenance skills contend with modern solid state *and* 25-year-old tube technology equipment?

What can we do about it? Some *potential* solutions are provided below.

- We can maximize IDT time for C-E training. That may well seem easier said than done. Admin and other kinds of work admittedly take sizeable chunks out of weekends. We have to try, however.
- We can take advantage of every available audiovisual training (TEC) package possessed by units and USAR schools that relates to C-E maintenance skills. If a package isn't immediately available, we should *ask* for it.
- We can work with servicing District Recruiting Commands and nearby post In-Service Recruiters to contact soldiers experienced in C-E maintenance *as* or shortly after they leave active duty.
- We can also work with recruiters in developing leads on non-prior service individuals whose civilian occupations relate to C-E skills — phone company technicians, for instance.
- We can enroll every unit member in correspondence training.
- When units meet, we can emphasize basic electronics skill training. You can believe that knowing the basic stuff makes trouble shooting techniques and higher maintenance skill levels easier.
- We can and should call on the Active Army for expertise. Some units now get intensive training at DARCOM depots. Others are tasked to provide maintenance support at Active and Reserve training installations.

Much can be done. But everyone's attention has to be glued to training the troops. The challenge is ours.

Lt. Col. Arce represents the USAR at the U.S. Army Signal School's Directorate for Training Development.



USAR Capt. Albert L. Lewis lunges from the water at the 25-meter mid-point of the 50-meter obstacle course during CIOR practices at Fort Meade, Md., July 1981. Practice was conducted under international conditions.

Photos by Dick Crossland

USAR Capt. William M. Stobie hurdles 1.2-meter beams halfway through the 500-meter land obstacle course.

U.S. Reservists, Guardsmen Dominate CIOR Games

by Maj. Dick Crossland

American athletes dominated the 1981 CIOR Military Pentathlon at Oirschot, the Netherlands, last August.

Conducted annually by the Interallied Confederation of Reserve Officers (CIOR), the Pentathlon is five arduous events which test stamina and military skills. Competition includes a military orienteering run, marksmanship, medical skills and land and water obstacle courses.

The six U.S. teams finished first, second, sixth, seventh, 15th and 17th among 35 teams from 12 NATO countries. The American Novice team also placed first in its category, and American entries won the marksmanship, military orienteering run and land obstacle events. There's more on who did what below.

EVENTS TEST PHYSICAL ENDURANCE, FITNESS

The competitions are extremely strenuous. And that's an understatement. There is a physically punishing 500-meter land obstacle course plus an exhausting water obstacle course. Marksmanship is tested on the M-16, the .45 caliber pistol and the .45 caliber sub-machine gun.

Finally, there is a 12-kilometer military orienteering run with weapons. During the run, which ends with a grenade-throwing contest, competitors must find check points, cross natural obstacles and solve military problems.

Standards are high. To try out for the U.S. team, an officer must be able to run five miles in 32:30 minutes. He or she also must swim 50 meters in 36 seconds. And, there is a requirement to do ten pull-ups.

According to Capt. Jon Nealon, U.S. team coordinator, running ability is a deciding factor in team selection. The final cut in training camp is an eight-mile run.

However, priority is given to orienteering skills. The top six orienteering officers are guaranteed selection as a team cannot afford to get

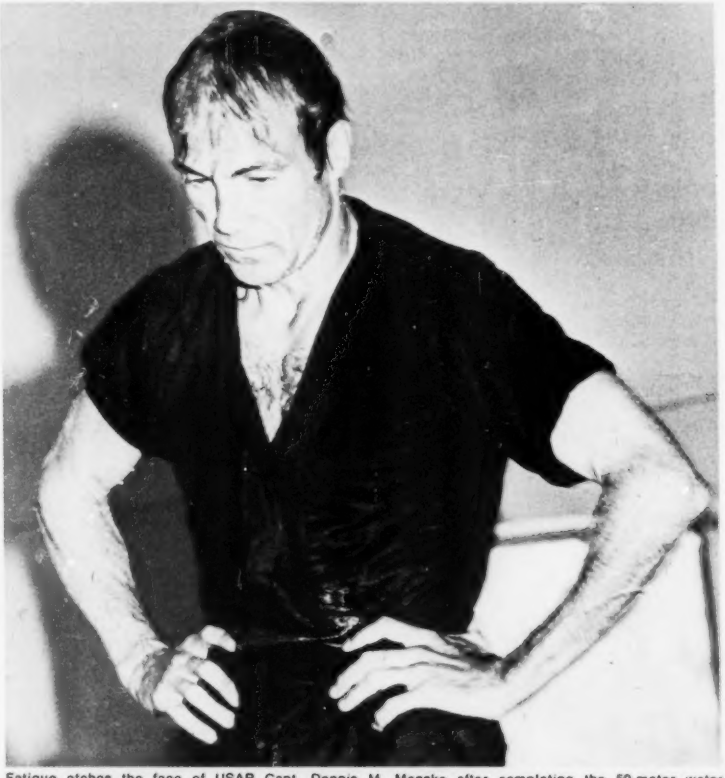


Photo by Dick Crossland

Fatigue etches the face of USAR Capt. Dennis M. Manske after completing the 50-meter water obstacle for CIOR competitions.

Photo by Staff Sgt. Tom Healy

Army National Guard 2nd Lt. Daniel J. Walker attacks a 3.5-meter sloping wall during team practices at Fort Meade, Md. Walker was a member of the winning Novice team during the 1981 CIOR competitions.

lost during the military orienteering run.

Endurance does not guarantee success. According to Nealon, it is impossible to run the land obstacle course without some injury, however minor. "It really bangs you up," says Nealon. Major lacerations and broken bones are not uncommon in the heat of international competition.

1982 COMPETITION IS SET

The United States will enter six three-officer teams in the 1982 CIOR competitions. The events will be held August 9 to 11. However, the selection process for the U.S. team begins April 9, 1982. That is when applications are due. Approximately 50 Reserve officers, regardless of service or component, will begin training at Fort Sam Houston, Texas on June 18.

Final selection will be on July 11, and team training will continue through August 8. Team members will be released from active duty August 15.

Interested USAR officers may call Nealon at (512) 221-4816, or AUTOVON 471-5359. Or, they may write Nealon as the Reserve Forces Coordinator, U.S. Modern Pentathlon Training Center, Fort Sam Houston, Texas 78234. Officials at the Office, Chief Army Reserve, the Department of the Army action agent for CIOR 1982, advise everyone who's interested to start getting in shape *now*.

1981 WINNERS

Members of the 1981 championship American team were Lt. Cmdr. Melvin E. Harding, USACGR; Lt. Gordon Haller, USNR; and 1st Lt. Billy A. Navas, USMCR. The second place team consisted of Capt. Jon A. Nealon, USAR; 2nd Lt. Bernard M. LaValley, USARNG; and Capt. William Pospisil, USAMCR. The first-place Novice team was Capt. Ronald R. Baynes, USAR; 2nd Lt. Daniel J. Walker, USARNG; and 2nd Lt. David Cener, USARNG.

The trio of Nealon, LaValley and Pospisil won the marksmanship competition by ten points over a French entry and placed first in the land obstacle course. Americans Harding, Haller and Navas were the military orienteering run champions followed by the host Netherlands team and a Canadian entry.

The team of Capt. Albert L. Lewis, USAR; Maj. William J. Flahive, USAR; and Capt. Eric L. Stephens, USAFR, chart the course to the next check point during the Military Orienteering Run practice at Quantico, Va. Team members are offered water at several points over the 12-km. run.

Photo by Dick Crossland

Except for marksmanship, all events were run against the clock. A team's score was that of its slowest member. Marksmanship was determined by averaging scores from the pistol, rifle and sub-machine gun ranges. The host country's weapons were used.

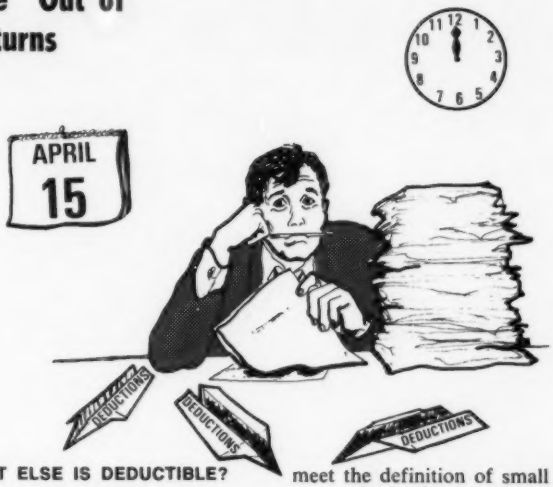
The CIOR was founded in Brussels, Belgium, in 1948. It's dedicated to providing support to the cohesiveness of the Atlantic Alliance. The CIOR has roughly 300,000 members.

Tax Tips: Take The "Bite" Out of Your April Returns

by Maj. Dick Crossland

Army Reservists who itemize their deductions may find many potential opportunities to legally minimize their 1981 federal income tax bill.

Internal Revenue Service officials point out that there are few deductions unique to Army Reserve membership. But, Reservists should consider deductions for travel, work uniforms and small tools before filing the 1981 income tax returns.



TRAVEL EXPENSES

Because being a Reservist usually means that the member has two jobs, Reservists may be able to deduct some transportation expenses. Guidelines from the IRS state that "if you work at two places in a day, whether or not for the same employer, you may deduct the expenses of getting from one place to another." Thus, a Reservist who goes from his or her primary job to a meeting or drill can usually deduct the cost of travel between the civilian job and the USAR training.

An IRS term which becomes important to Reservists is "tax home." Generally, the IRS defines an individual's tax home to be the main place of business or employment, regardless of where the family home is maintained. This definition implies that the Reservist's full-time employment has priority over a Reserve assignment when determining the tax home, a situation which may work to the Reservist's advantage.

According to IRS Publication 463 (Travel, Entertainment and Gift Expenses), if a Reservist's weekend meetings are held outside the general area of the tax home, the Reservist may deduct the cost of transportation to attend those meetings. On the other hand, if the meetings are in the general area of the tax home, the cost of transportation would be considered to be commuting expenses and would not be tax deductible.

It is also possible that if on occasion Reserve duties take a soldier to locations beyond the tax home, that such travel and related expenses would be tax deductible. However, the allowing of such deductions is decided on an individual taxpayer basis and no general rule can be given.

WHAT ELSE IS DEDUCTIBLE?

Reservists who must pay someone to care for dependents while attending to Reserve duties, may be able to take a tax credit. Part-time work as well as full-time work can qualify the Reservist for this credit, which is computed on Form 2441 (Credit for Child and Dependent Care Expenses) and filed on Form 1040. If you file Form 1040A, you cannot claim a tax credit for dependent care.

Membership dues for officers' clubs are not usually deductible. It is difficult to show that membership is a business deduction. On the other hand, dues paid to professional organizations and contributions to veterans organizations are deductible.

Reservists should be aware that reenlistment bonuses are taxable as is military pay from active duty and inactive duty. However, housing and subsistence allowances, which may be paid during Annual Training, are not taxable. In addition, those Reservists who receive Veterans Administration pension payments for disabilities or who receive VA education allowances do not have to pay taxes on these benefits.

The cost of small tools necessarily used in the Reservist's line of work may be tax deductible. Beyond this general statement, very little specific can be said. It is questionable whether or not swim fins individually bought for SCUBA training or personal cameras bought by public affairs specialists among other things meet the definition of small tools.

Deductible travel and transportation expenses of a Reservist may be taken as adjustments to income, whether or not deductions are itemized. Other expenses, such as uniforms and small tools, are deductible only if deductions are itemized on Schedule A (Form 1040). In any case, to claim deductions or credits related to your service in the Army Reserve, you must file Form 1040, not Form 1040A.

WHERE TO GO FOR ADVICE

Because the upholding of a deduction depends upon the individual's circumstances, Reservists should seek help in preparing their returns when in doubt. The IRS has toll-free numbers which can be called if the taxpayer needs advice. Or, the Reservist may wish to retain a private tax expert.

One point which is clear is that if you do not claim a deduction, exclusion or credit which you are entitled to, you will have lost a definite tax advantage. To benefit from a deduction, exclusion or credit, you must claim it.

For more information on how to file your 1981 federal income tax return while minimizing your tax share, the IRS suggests that Reservists obtain the following IRS publications:

- IRS Publication 17: *Your Federal Income Tax*
- IRS Publication 463: *Travel, Entertainment and Gift Expenses*
- IRS Publication 529: *Miscellaneous Deductions*

Versatile C-17 to Tote Army Tons

by Capt. Bob Pratt

There's a haunting fact about the Army's readiness for war. There aren't enough planes that can carry heavy and BIG equipment *close* to the fighting. And an Army is useless if it can't get its big gear close-in.

Our aircraft capabilities have not kept pace with the Army's modernization.

That's why the Air Force and Army have been busy getting the C-17 (Cargo Experimental, formerly the C-X) aircraft program off the ground. When built, the widebodied transport would carry the Army's heaviest, bulkiest gear to "small austere airfields" — roughly 3,000 feet long and 90 feet wide with small taxiways and small parking areas. McDonnell Douglas Corporation has been selected as the prime contractor to develop and provide the C-17.

THE SHORTFALL

The recently concluded Congressionally Mandated Mobility Study states that the U.S. needs to increase its airlift capacity by at least 20 million ton-miles per day. A ton-mile means moving one ton one mile. It concludes that an airplane with the C-17's direct delivery capability is the most efficient in helping to reduce the shortfall for all categories of cargo.

It becomes clearer when you consider what the Army has to haul. "Outsize" means things that are so large that now only Lockheed's monstrous C-5 — America's biggest plane — can carry them.

Right now, it's estimated that eight percent of the equipment used by airborne divisions is outsize. In heavy divisions, outsize equipment represents 40 percent of the total. As the Army modernizes under Division 86, those figures are expected to grow to between nine and 55 percent. And it's estimated that 30 percent of the equipment would be delivered to "round out" the Army's prepositioned war stocks overseas is outsize.

It's not just the attack helicopters, tanks, self-propelled artillery and other big firepower systems that matter. Equally important is the equipment belonging to the engineer, transportation and signal units. In wartime, many of these units would come from the USAR.

THE ARMY AND THE DESIGN

That's why the Army has a hand in defining the C-17 design requirements. The C-17 has to carry everything from main battle tanks to not so glamorous gear like water purification units. When you consider that the Army Reserve would provide the Total Army with 35 percent of its supply and service units during a mobilization, *moving* large combat service support equipment takes on significance.

THE SPECS

The C-17 would be capable of carrying troops and all types of cargo (including outsize) over "intertheatre," or long-distance, strategic routes. It could also fly "intratheatre" or shorter, tactical routes. That means the C-17 would augment today's tactical prop-driven work horse, the C-130, which has no outsize cargo capability.

The C-17 would be 171 feet long with a 165-foot wingspan. The plane would have a crew of three, a cargo capacity of 86 tons and a range of 2,400 nautical miles before refueling.

The jet would be equipped with a low altitude parachute extraction system or LAPES, enabling the plane to fly just a few feet above the ground as cargo loads are pulled from the fuselage by parachute. It would also be able to airdrop 102 paratroop-

U.S. Army photo

A C-130 Hercules unloads tracked cargo using LAPES, or Low Altitude Parachute Extraction System. The bigger jet C-17 is designed to do the same.

U.S. Air Force photo

C-17 (artist's conception) will be able to take the Army's bulkiest gear to small, rough fields.

ers in 55 seconds and airdrop 110,000 pounds with single loads of 55,000 pounds. The ability to use LAPES and airdrop is important, as it may be the only way equipment and troops could be introduced into a critical area.

Like the C-5, the C-17 is designed for landing strips that lack hard surfaces. But unlike the C-5, C-17 is designed to land on small strips that are too small for the huge Lockheed. That's crucial: getting outsize gear close to combat could spell the difference between victory and disaster.

Put in military language, this means that the C-17 is, in design, the only aircraft capable of intercontinental and intratheatre outsize transport.

The decision to buy the C-17 will come after the Air Force evaluates several mixes of airplanes and other aircraft improvement projects. What will drive *the* mix is the best alternative to correct the outsize (all sizes, for that matter) aircraft shortfall.

Right now, the Air Force uses the C-13 Hercules, the C-141 Starlifter jet transport and the C-5 Galaxy. The 141s are literally being stretched to accommodate more cargo and the C-5s are getting new, stronger wings to extend their service lives.

The Civil Reserve Air Fleet (CRAF), a major part in the strategic airlift equation, presently provides almost 50 percent of our strategic airlift capability. These airplanes, numbering over 400, would be available to lift oversize and bulk cargo and passengers in the event of an emergency. A major effort to modify some 100 civilian wide-body passenger aircraft to carry big cargo is underway. This additional capability would complement the C-17 and the C-5.

However, it is the C-17 that the nation would have to get the Army's biggest equipment close in. Meanwhile, the airlift shortfall problem grows — adding another puncture in the logistical picture of the Total Army.

Wisconsin Unit

They Also Serve Who Cut Wood

by Spec. 5 John Starline,
Fort Carson PAO

When the 457th Engineer Detachment from Hurley, Wis., takes to the field, its weapons are saw blades.

It's the only portable sawmill unit in the Army, and its mobilization mission is to cut lumber for war.

The 457th can produce up to 8,000 board feet of rough cut lumber in one day, and 7,000 finished board feet under ideal conditions. With lumber provided by the unit, the Army can build bridges, temporary buildings and other structures in combat.

There's a regular division of labor in the operation. One soldier scales each log (yes, with a log scaler), another edges the log (takes the bark off), and another tallies each piece of lumber. Stackers pile the wood for drying.

The unit cuts diseased elms and firewood as a community service in the Hurley area. When it trains at Fort McCoy, Wis., it saves Uncle Sam dollars.

1st Sgt. Jim Kulik explains. "We can cut $50,000 worth of wood during our Annual Training at Fort McCoy. We're the only unit that can pay its way for summer training because of what our lumber production saves the government."

457th's Sgt. Dave Kostak fells scrub timber at Fort McCoy. He's a lumberman in civilian life.

Two members of the USAR's 457th Engineer Detachment operate the Army's only portable sawmill.

Photos by Lee Jenkins

Paper trooper from airborne engineer unit drags to safety after coming down at the outer edge of Fort McCoy's drop zone. Photo taken in the summer of 1991 by USAR Capt. Lee Jenkins.

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